

Serial No. 09/943,574
Docket No. Mald Raff 16 CON2
Amendment B under Rule 116

AMENDMENTS TO THE CLAIMS:

Please cancel claims 31, 34, 40, 42 and 44, without prejudice. Kindly amend claims 30 and 32 as shown below.

This listing of claims will replace all prior versions and listings of claims in the Application:

Claims 1-29 (cancelled)

Claim 30 (currently amended): A fractionated chicory inulin composition, ~~comprising~~ consisting essentially of a crystallized fractionated polydisperse chicory inulin composition which:

(A) is in the form of spherical particles that have a diameter comprised between 1 and 100 μm , and that present radial symmetry, double breaking and perpendicular fade cross under polarised light;

(B) has an average degree of polymerisation (av. DP) ~~which is double or higher than~~ an av. DP of the native polydisperse inulin composition between 20 and 40;

(C) contains less than 0.2 wt% of monomers and less than 0.2 wt% of dimers and less than 1.5 wt% of oligomers with a DP < 10;

(D) contains less than 0.2 wt% ash; and

(E) contains no detectable amount of alcohol.

Claim 31 (cancelled)

Claim 32 (currently amended): The composition according to claim ~~[[31]]~~ 30, wherein the spherical particles have a diameter comprised between 5 and 70 μm .

HAYES SOLOWAY P.C.
30 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

75 CANAL STREET
CHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

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Claim 33 (previously presented): The composition according to claim 30 in spray-dried form.

Claim 34 (cancelled)

Claim 35 (previously presented): The composition according to claim 32 in spray-dried form.

Claim 36 (previously presented): The composition according to claim 30 wherein the inulin composition is esterified, etherified, oxidized and/or cross-linked.

Claim 37 (previously presented): A composition having a creamy structure comprising the inulin composition according to claim 30.

Claim 38 (previously presented): A composition having a creamy structure comprising the inulin composition according to claim 32.

Claim 39 (previously presented): A pelletized composition including the composition according to claim 33 which forms instantly a colloidal dispersion.

Claim 40 (cancelled)

Claim 41 (previously presented): A pharmaceutical, cosmetic, feed and/or food composition comprising the composition according to claim 30.

Claim 42 (cancelled)

Claim 43 (previously presented): A pharmaceutical, cosmetic, feed and/or food composition comprising the composition according to claim 33.

Claim 44 (cancelled)

HAYES SOLOWAY P.C.
30 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

75 CANAL STREET
DORCHESTER, NH 03101
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Claim 45 (previously presented): A process for producing a crystallized fractionated polydisperse chicory inulin composition from a native polydisperse chicory inulin by a directed crystallization of an inulin solution, which comprises the steps in sequence of:

(A) a rapid achievement of a high degree of super saturation obtained by bringing a native polydisperse chicory inulin into solution in water solvent at a temperature above 85°C and by a rapid cooling by a heat exchanger to a temperature between - 6°C and 40°C at a rate between 0.2°C/sec and 10°C/sec, or by a rapid concentration increase through evaporation of the solvent, or by a combination thereof, to provide said crystallized fractionated polydisperse inulin in the form of particles;

(B) separation of the particles after crystallization from the obtained suspension; and

(C) washing the separated particles with water, yielding a crystallized fractionated chicory inulin composition that:

(i) is in the form of spherical particles that have a diameter comprised between 1 and 100 µm, and that present radial symmetry, double breaking and perpendicular fade cross under polarised light;

(ii) has an average degree of polymerisation (av. DP) which is double or higher than an av. DP of the native polydisperse inulin composition;

(iii) contains less than 0.2 wt% of monomers and less than 0.2 wt% of dimers and less than 1.5 wt% of oligomers with a DP < 10;

(iv) contains less than 0.2 wt% ash; and

(v) contains no detectable amount of alcohol.

HAYES SOLOWAY P.C.
30 W. CUSHING ST.
WILMINGTON, MA 01890
TEL. 520.882.7623
FAX. 520.882.7643

75 CANAL STREET
CHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

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Claim 46 (previously presented): The process according to claim 45, wherein the particles separated after crystallization are washed with demineralized water at 15°C.

Claim 47 (previously presented): The process according to claim 45, wherein grafting particles are used in the directed crystallization.

Claim 48 (previously presented): The process according to claim 45, wherein the process further comprises the step of drying of the washed particles.

Claim 49 (previously presented): The process according to claim 45, wherein the process further comprises the step of drying of the washed particles by spray-drying.

Claim 50 (previously presented): The process according to claim 47, wherein the process further comprises the step of drying of the washed particles.

Claim 51 (previously presented): The process according to claim 47, wherein the process further comprises the step of drying of the washed particles by spray-drying.

Claim 52 (previously presented): The process according to claim 45, wherein the process further comprises the step of chemical or enzymatic modification of the washed particles.

Claim 53 (previously presented): The process according to claim 45, wherein step (A) comprises:

a directed crystallization comprising a rapid achievement of a high degree of super saturation obtained by bringing native chicory inulin into solution in water at a concentration between 15 and 60% dry mass at a temperature above 85°C, and rapid cooling at a cooling rate between 1°C/sec and 7°C/sec to a temperature between 15°C and 25°C, including the use of

HAYES SOLOWAY P.C.
30 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
CHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.6567

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Docket No. Mald Raff 16 CON2
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grafting particles in a ratio to the particles to be produced of 1/100 to 1/200,000 (expressed as wt%), providing crystallized fractionated polydisperse chicory inulin in the form of particles; and
step (C) comprises washing of the separated particles with demineralized water at 15°C,
whereby the resulting crystallized fractionated chicory inulin composition

- (i) is in the form of spherical particles that have a diameter comprised between 1 and 100 μm , and that present radial symmetry, double breaking and perpendicular fade cross under polarised light;
- (ii) has an average degree of polymerisation (av. DP) between 20 and 40;
- (iii) contains less than 0.2 wt% of monomers and less than 0.2 wt% of dimers and less than 1.5 wt% of oligomers with a DP < 10;
- (iv) contains less than 0.2 wt% ash; and
- (v) contains no detectable amount of alcohol.

Claim 54 (previously presented): The process according to claim 53, wherein said grafting particles are used in a ratio to the particles to be produced of 1/5,000 to 1/80,000 (expressed as wt%), yielding said crystallized fractionated polydisperse chicory inulin in the form of spherical particles that have a diameter comprised between 5 to 70 μm .

Claim 55 (previously presented): The process according to claim 53, furthermore comprising drying of the washed particles.

Claim 56 (previously presented): The process according to claim 53, furthermore comprising drying of the washed particles by spray-drying.

Claim 57 (previously presented): The process according to claim 54, furthermore comprising drying of the washed particles.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
WINCHESTER, NH 03101
TEL. 603.688.1400
FAX. 603.688.8587

Serial No. 09/943,574
Docket No. Mald Raff 16 CON2
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Claim 58 (previously presented): The process according to claim 54, furthermore comprising drying of the washed particles by spray-drying.

Claim 59 (previously presented): The process according to claim 53, furthermore comprising the step of chemical or enzymatic modification of the washed particles.

HAYES SOLOWAY P.C.
30 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
WINCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567